

METHOD AND APPARATUS FOR CORRELATING
FLIGHT IDENTIFICATION DATA WITH
SECONDARY SURVEILLANCE RADAR DATA

ABSTRACT OF THE DISCLOSURE

5 A system for correlating secondary surveillance radar
(SSR) data and ACARS data which results in a real time
correlation of data which are unique to the separate
existing systems. More specifically, a method is provided
to attach flight identification data from ACARS signals to
10 real time SSR data from Mode S transponders. Aircraft Mode
S addresses are decoded and then converted to aircraft
registration numbers using an algorithm or lookup table.
Registration numbers are then correlated with registration
15 numbers from decoded ACARS signals. The result is a real-
time system which may provide an aircraft's registration
information, including registration number, owner, make, and
model, as well as its current flight identification number,
and ACARS messages. As part of an aircraft multilateration
20 system, the system provides an independent air traffic
control picture complete with aircraft position and
identification by flight number without the use of active
radar equipment.